GEOGRAPHIC SCHOOL BULLETINS

OF THE NATIONAL GEOGRAPHIC SOCIETY, WASHINGTON 6, D.C.

MAY 14, 1956 VOL. XXXIV, NO. 30

FEATURED IN THIS ISSUE . . .

- ► Mediterranean Sea
- ► St. Lawrence Seaway
- ► Index, Vol. XXXIV
- ► The Tiny Tarsier

★RENEWAL NOTICE

This is the final issue of the Geographic School Bulletins until October 1. Was a RENEWAL BLANK inserted in your copy? If so, it means that your subscription expires on this date. Fill out the renewal blank and return it promptly to insure uninterrupted delivery of your valuable issues next fall, when publication resumes after summer vacation.

SICILIAN CONSPIRACY—It's Men and Nets Against the Mediterranean's Fish. Palermo Seafarers Use a Waterfront Boulevard for Between-Rounds Drying and Mending

349

LUIS MARDEN, NATIONAL GEOGRAPHIC STAFF

ALFRED W. COOK

TRIPOLI'S BARBARY PIRATES ARE LONG GONE—Where Raiding Corsairs Anchored, Peaceful Freighters Call to Pick up North African Cargo, Carry It Across the World

Under bright skies, Egyptian, Greek, Roman, Byzantine, and Ottoman empires waxed and waned. Three great religions, Judaism, Christianity, and Islam, were born along the sea's eastern boundaries. Ideas and inventions rode the Mediterranean, spreading from centers of learning.

From sites near today's mideastern ports, ancient Phoenicians launched purple-sailed galleys to explore, colonize, trade. Now slender tankers, decks nearly awash with cargoes of oil, plow the same waters. In medieval days, powerful city-states—Pisa, Genoa, Ragusa, and Venice—sprang up along northern arms of the sea. Fattening on maritime trade, they funneled Oriental silks and spices into Europe's market places.

Now wave-battered tramp steamers load their holds with Italian exports—cars, motor scooters, sewing machines—then perhaps move on to Greece or North Africa to top their cargoes with fruits, leatherwork, native crafts (right).

The Suez Canal, finished in 1869, added new meaning to the waterway. But its importance will be rivaled by another vital seaway, now being built. Turn the page.

JEAN AND FRANC SHOR, NATIONAL GEOGRAPHIC STAFF

STUART E. JONES, NATIONAL GEOGRAPHIC STAFF

Mediterranean Sea

SAILORS call it "the Rock"—a synonym for impregnability. Yet Gibraltar's looming bulk has more than strategic meaning. Not only does it stand like a sentry above a narrow strait, vital to the world's shipping, it also beckons the way into a huge inland waterway that laps the shores of three continents, a score of countries.

The vast, nearly land-bound Mediterranean Sea endowed the world with early civilizations. "Highway of History," "Sea of Troubles"—these names have been given to the deceptively placid waters. Both are still apt, with nationalist revolts and border tensions making news from French North Africa to Cyprus and Israel.

There is hardly a square mile flanking this blue expanse that hasn't known conflict and conquest, achievement and progress. Since the beginning of history the practically tideless Mediterranean has been a crossroad for the varied peoples along its shores. Its jagged coast line of deep inlets, bays, and sub-seas has sheltered and launched a succession of navies and merchant fleets. They still furrow its surface.

GEOGRAPHIC SCHOOL BULLETINS, copyright © 1956 by the National Geographic Society, John Oliver La Gorce, President. Published weekly during the school year by the School Service Division, Ralph Gray, Chief. Entered as second class matter, Post Office, Washington, D. C. International copyright secured. All rights reserved. Rates: United States, 75c for 30 issues (one school year); Canada, $1.00; elsewhere, $1.25. United States only, three years (90 issues) for $2.00. The National Geographic Society is a nonprofit educational and scientific society established for the increase and diffusion of geographic knowledge.

Now picture the busy St. Lawrence port of Montreal. Its city docks are lined with freighters from all over the world. They've gone as far upriver as they can. The vast trade of Great Lakes ports is closed to them.

Turn the calendar ahead, say five years. Miraculously, the bottleneck is broken. Lake vessels have access to the mouth of the St. Lawrence. Ocean-going freighters visit lake ports like Ashtabula. North America's midwest has been thrown open to full-scale world shipping. Reason for the miracle: The St. Lawrence Seaway.

Linked like grapes on a vine, the Great Lakes are giant pools along a vast natural waterway draining into the Atlantic through the St.

ST. LAWRENCE SEAWAY DEVELOPMENT CORP.

LIKE PREHISTORIC MONSTERS, Massive Machines Gnaw at a Stretch of Projected Long Sault Canal as Cofferdams Hold River at Bay. Actual Work Began Last Summer

Lawrence River. Water surface drops 603 feet from Lake Superior to sea level. The Soo Canals, 100 years old last year, take vessels down one set of "stairs." Canada's Welland Canal lowers smaller ships from Lake Erie to Lake Ontario—the same descent that produces Niagara Falls. But in the 182-mile river stretch between Lake Ontario and Montreal, head of ocean navigation, rapids turn the St. Lawrence into frothing turmoil. Old-fashioned canals bring small, shallow-draft vessels upstream. In this stretch an American-Canadian army of men is already reshaping the river, dredging channels at least 27 feet deep, digging new canals and deepening old ones, building new locks.

In the International Rapids section, between Ogdensburg and St. Regis, New York, Americans are hacking out a 10-mile canal to bypass Long Sault Rapids. Between Cornwall and Montreal, Canadians plan two new canals with five locks.

In 1959, when the seaway is due to open, all but the world's very

UMI

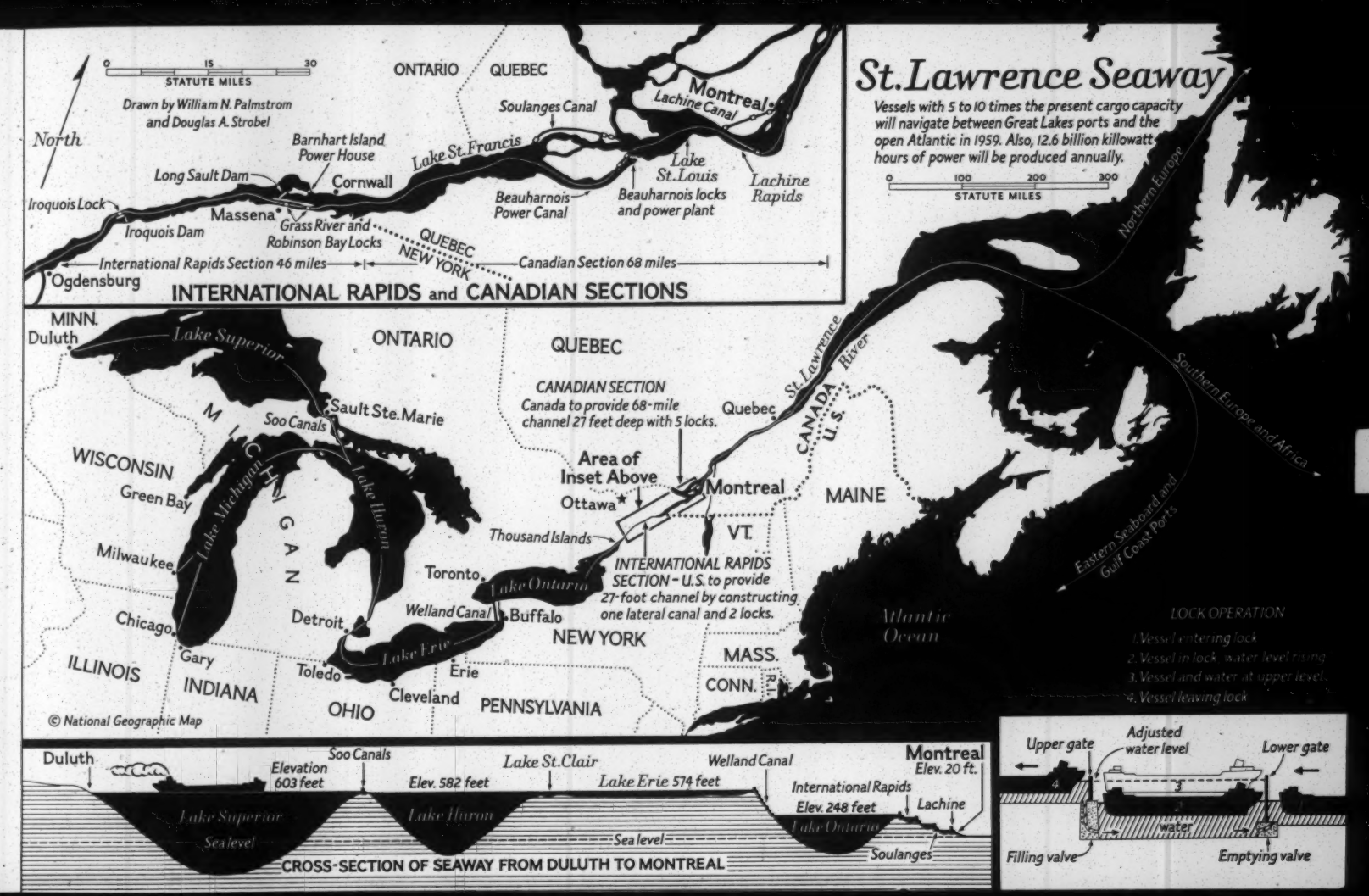
BOB KUCERA

St. Lawrence Seaway

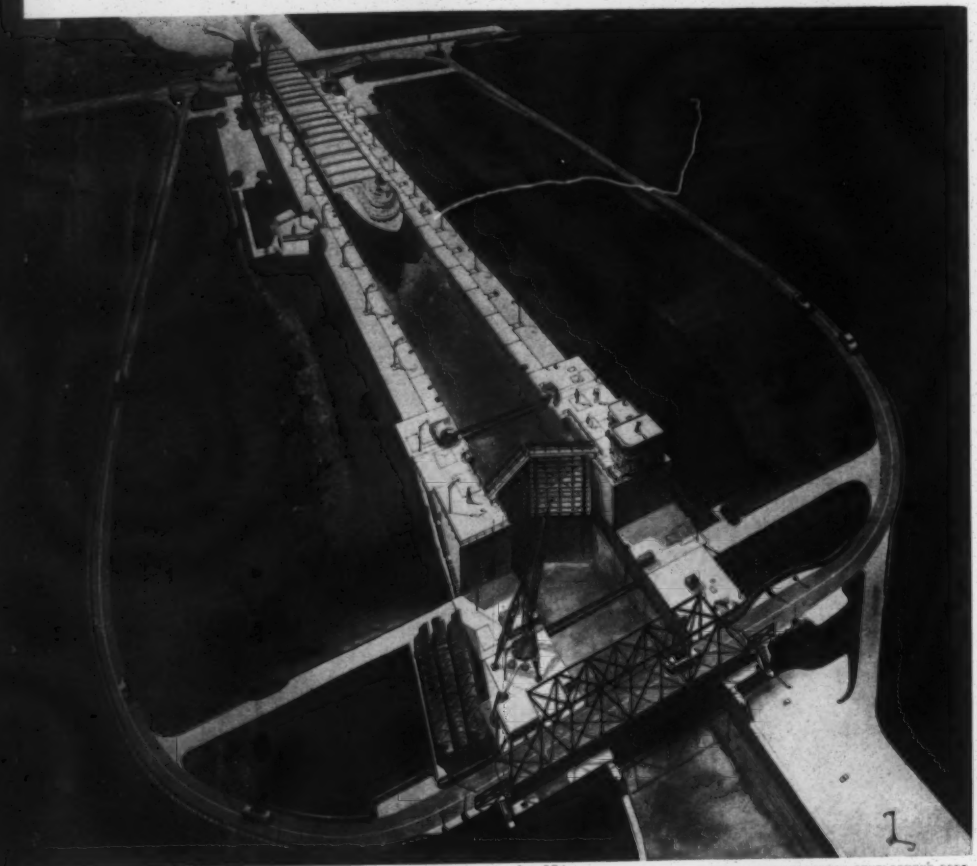
ASHTABULA, Ohio, a notch in the curving shore line of Lake Erie. It typifies harbors—some big, some little—all around the Great Lakes. Into these ports steam long, low-lying freighters, holds packed with iron ore from Minnesota's Mesabi Range, or with wheat, or coal. Ponderously, they snake through the inevitable breakwater, then inch into narrow slips where railroad sidings await their cargoes.

To such ships (right) the Great Lakes form an inland sea. They can visit eight states—New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, and Minnesota—and the Canadian Province of Ontario. They're too big to get through the St. Lawrence River. Like salmon in a millpond, they're landlocked.

ST. LAWRENCE SEAWAY DEVELOPMENT CORP.


St. Lawrence Seaway
Vessels with 5 to 10 times the present cargo capacity will navigate between Great Lakes ports and the open Atlantic in 1959. Also, 12.6 billion killowatt hours of power will be produced annually.
0 100 200 300
STATUTE MILES
Drawn by William N. Palmstrom and Douglas A. Strobel
North
0 15 30
STATUTE MILES
ONTARIO
QUEBEC
Montreal
Lachine Canal
Soulanges Canal
Barnhart Island Power House
Lake St. Francis
Long Sault Dam
Cornwall
Lake St. Louis
Lachine Rapids
Iroquois Lock
Massena
Beauharnois Power Canal
Beauharnois locks and power plant
Iroquois Dam
Grass River and Robinson Bay Locks
QUEBEC
NEW YORK
International Rapids Section 46 miles
Canadian Section 68 miles
Ogdensburg
INTERNATIONAL RAPIDS and CANADIAN SECTIONS
MINN.
Duluth
Lake Superior
ONTARIO
QUEBEC
CANADIAN SECTION
Canada to provide 68-mile channel 27 feet deep with 5 locks.
Quebec
St. Lawrence River
CANADA
U.S.
Sault Ste. Marie
Soo Canals
MICHIGAN
Lake Michigan
Lake Huron
WISCONSIN
Green Bay
Area of Inset Above
Montreal
Ottawa
MAINE
Thousand Islands
VT.
Milwaukee
Toronto
Lake Ontario
INTERNATIONAL RAPIDS SECTION - U.S. to provide 27-foot channel by constructing one lateral canal and 2 locks.
Chicago
Detroit
Welland Canal
Buffalo
NEW YORK
Gary
Lake Erie
ILLINOIS
INDIANA
Toledo
Erie
MASS.
CONN.
Cleveland
PENNSYLVANIA
OHIO
© National Geographic Map
Northern Europe
Southern Europe and Africa
Eastern Seaboard and Gulf Coast Ports
Atlantic Ocean
LOCK OPERATION
1. Vessel entering lock
2. Vessel in lock, water level rising
3. Vessel and water at upper levels
4. Vessel leaving lock
Duluth
Elevation 603 feet
Soo Canals
Lake Superior
Sea level
Elev. 582 feet
Lake Huron
Lake St. Clair
Lake Erie 574 feet
Welland Canal
International Rapids
Elev. 248 feet
Lake Ontario
Sea level
Montreal
Elev. 20 ft.
Lachine
Soulanges
CROSS-SECTION OF SEAWAY FROM DULUTH TO MONTREAL
Upper gate
Adjusted water level
Lower gate
1
2
3
4
water
Filling valve
Emptying valve

Run-down of Facts and Figures: The St. Lawrence Seaway Will . . .



354 ST. LAWRENCE SEAWAY DEVELOPMENT CORP.

NEW AND OLD—Huge Ships Will Fit 800-Foot Grass River Lock. Some Vessels Built to Squeeze into Present Locks (right) Will Be Lengthened for Big Seaway Cargoes

- add about 8,000 miles of "coast line" to the North American continent
- allow vessels more than 700 feet long, with about 75-foot beam and 25-foot draft, to pass from the Atlantic to the Great Lakes through giant locks (left) surrounded by green parkland. At present, ships must be no longer than 250 feet, with 43-foot beam and 14-foot draft, to get through old locks like those along the Soulanges Canal (below)
- bring new industries to towns along the waterway
- generate three times the electrical output of Colorado River's Hoover Dam
- involve the relocation of highways and railroads, the building of new bridges
- move enough earth to fill a train of 50-ton cars 27,000 miles long
- cost about a billion dollars: navigational works to be shared by U. S., Canada; power development by New York and Ontario
- be the subject of a 90-minute TV documentary on Sunday afternoon, June 3

NATIONAL GEOGRAPHIC PHOTOGRAPHERS B. ANTHONY STEWART AND JOHN E. FLETCHER

INDEX

Volume XXXIV

Entries signify pictorial and written matter

Afghanistan 187-189

Africa 65 *See also* Egypt; Ethiopia; Gold Coast; Great Rift Valley; Kenya; Libya; Morocco; Nigeria; South Africa; Southern Rhodesia; Sudan; Uganda

Agriculture Canada 51-52; Denmark 278-279; Egypt 254-257; England 318; France 147-148; Israel 326-327; Saar 86; U.S. 102-103, 242, 266-267

Air bases Azores 107-108; Malta 124-125; Morocco 26-27

Alaska 301-305

Alberta 49-52; Waterton Lakes National Park 343

'Amman, Jordan 208

Anchorage, Alaska 302

Animals antelope 43; bear 267, 343; camel 123, 170, 205, 206, 258; carabao 269; caribou 128; cats 42-43; cattle 37, 78, 103, 123, 139, 266, 279, 321; deer 145; dog 239; goats 123, 125; horses 25, 45, 61, 123, 127, 148, 157, 197, 265, 266, 329, 340; koala 160; leopard 43; lion 42; mink 192; monkey 274, 275; oxen 170, 171, 254; porpoises 90-91; prairie dog 245; prehistoric 184-185; puma 42; reindeer 128; sheep 67, 110, 123, 229; tarsier 360; tiger 43

Antarctica 13-16, 306-307

Anthropology Ice Age 181-186 *See also* Indians

Aqualungers 246-247

Archeology *See* Easter Island, Egypt, Indians

Arctic regions 198-199 *See also* Peary, R. E.

Argentina 329

Ashtabula, Ohio 352

Asia *See* Afghanistan, Gaza strip, India, Indonesia, Israel, Japan, Jordan, Mongolian Republic, Nepal, Pakistan, Tibet, Turkey, Viet Nam

Astronomy 260-261; Maya 80; moon 140; sky survey 58-60; sun 221

Atomic energy Oak Ridge, Tenn. 338

Australia 37-40, 158-160, 229-231; lyrebird 84 *See also* Carpentaria, Cocos

Austria 18-19; Brenner Pass 262-263

Aviation 116-119, 282, 283; gliders 32-33; helicopter 13; hydroplane 304

Azores 107-108

Bananas Ecuador 194

Banff, Alberta 51

Barns Canada 64; U.S. 97, 102-103, 242, 266

Baseball bats 308-309

Bauxite 222, 284-285

Beaches Rio de Janeiro, Brazil 9; La Jolla, Calif. 211; Gold Coast, Africa 234; Jamaica 223; Martha's Vineyard, Mass. 163; Newport, R. I. 163

Bell, Alexander Graham 152-155

Bicycles 19, 27, 120, 134, 142, 175, 274, 275, 278

Birds crane 17; falcon 310; kiwi 320-321; lyre 84; parakeet 264; peacock 312; penguin 16, 296-297; pigeon 209; prairie chicken 69; swan 161

Biology, Marine 246-247

Black Sea 224

Boats and ships barges 141-144, 243; bark 178-180; cable 136-137; canoes 112, 139, 151, 163, 176, 270, 271; caravels 20-22; dories 166, 330, 331; freighters 4, 14-16, 26, 273, 280, 284, 351, 352, 354, 356; icebreakers 14-16, 306-307; *Mayflower* 88-89; naval 13; rowboats 88, 108, 228, 234; sailboats 21, 163, 191, 224, 277; schooners 330-331; steamers 142, 143, 212, 284; warships 124, 130

Bolivia 176

Bombay, India 293

Bow River 51

Brazil 8-9

Brenner Pass 262-263

Bricks made from mud, Egypt 256

British Commonwealth *See* Australia, Canada, Cocos, Cyprus, England, Gibraltar, Gold Coast, India, Jamaica, Kenya, Malaya, Malta, New Zealand, Nigeria, Pakistan, St. Helena, Singapore, South Africa, Southern Rhodesia, Uganda

Buganda *See* Uganda

Byrd, Richard E. 14-16, 306-307

Cables submarine 136-137

Cafes Paris 101

Cairo, Egypt 256-257

Calabashes 217

California 33, 58-59, 140, 200-203, 210-211, 212-215

Cameras *See* photography

Canada *See* Alberta, Newfoundland, Ontario, Quebec, St. Lawrence Seaway, Saskatchewan

Canals Berlin, Germany 143 *See also* St. Lawrence Seaway

Carpentaria, Gulf of 280-281

Casablanca, Morocco 26-27

Chattanooga, Tenn. 337

Chile 44-45 *See also* Easter Is., Tierra del Fuego

Christmas celebrations 121, 126-127

Churches, temples, and mosques Aztec 85; Egypt 259; Old Sturbridge, Mass. 157; Maya 80; New England village 165; Santa Barbara mission 210; chapel, West Point 35

Churchill River 64

Clark, William 28-29

Clocks and watches 294-295; Swiss watchmaker 30-31; tower clocks; Malaya 274, Phila. 241

Coal 86-87, 230

Cocos Islands 190-191

Coffeehouses London 276

Colorado *See* U.S. Air Force Academy

Columbus, Christopher 20-22, 222-223

Communications cable ships 136-137 *See also* telephone, television

Connecticut *See* U.S. Coast Guard Academy

Conservation 17, 69, 161, 200-203

Copenhagen, Denmark 278

Copper 44

Corn 317

Cottica River 284

Cotton Uganda 139

Cowboys Chile 45; U.S. 78-79

Crafts basketry 94, 151; cobbler 188; metal 3, 257; watchmaking 30-31; weaving 81; woodcarving 95

Cumberland Gap 204

Cumberland River 340

Cyprus 66-68

Dams Calif. 200-202; Egypt 255-257; Tenn. 338

Dates Calif. 213

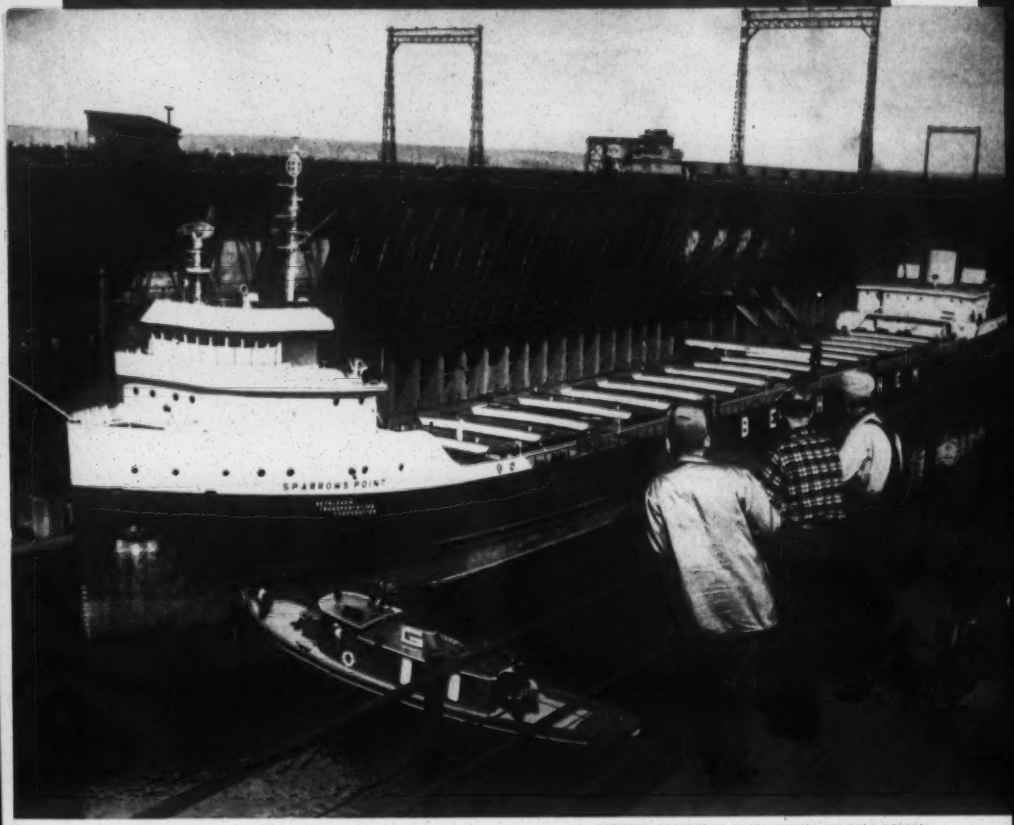
Denmark 277-279

Diamonds 98, 100

Duluth, Minn. ore dock 356

Dwellings tents, Antarctica 16; Seminole huts, Fla. 150; Guam 268, 269; Japan 174-175;

UMI



NATIONAL GEOGRAPHIC PHOTOGRAPHER VOLKMAR WENTZEL

DULUTH-SUPERIOR WILL BECOME A MIDCONTINENTAL SEAPORT—Though Ice Locks the Lakes for Five Months, the Seaway Will Surpass San Francisco in Tonnage

largest ships will be able to sail some 2,300 miles inland—the same distance as from Gibraltar to the Suez Canal—to make Duluth a "seaport." Other "ocean" harbors on the shores of this man-made Mediterranean will include Chicago, Milwaukee, Detroit, Cleveland, Toledo, Buffalo, Rochester, and Toronto.

Opened directly to world trade, with no transshipping problems, will be a United States area that produces 84 percent of the nation's automobiles, 61 percent of its miscellaneous machinery, 61 percent of its wheat, 71 percent of its corn, 69 percent of its dairy foods, 75 percent of its steel—not to mention products from the Canadian side.

Iron ore has been the most important lake cargo since the Soo Canals linked the Mesabi Range (just west of Duluth) with eastern lake ports. Demand for steel may someday deplete Mesabi. But providentially a new source in Labrador and Quebec near the mouth of the St. Lawrence offers fresh riches. Great Lakes ore carriers will be able to pick up cargoes down the river, then churn back to unload at lake-shore industrial cities.

The seaway is a costly undertaking, partly to be paid for by tolls. Its second phase, developing hydroelectric power, will turn it into an investment.

Maps—Continued
242; St. Lawrence Seaway 355; Saskatchewan 63; Tibet 315
Markets Cairo, Egypt 257; Lhasa, Tibet 313
Maryland barns 102 *See also* U.S. Naval Academy
Massachusetts 88-89, 157, 163, 164-167
Massasoit statue 89
Matches 104-106
Mayflower (ship) 88-89
Medical research aviation 116-119
Mediterranean Sea 349-351
Melbourne, Australia 158-159
Mexico 85, 92-95; Christmas 126; Yucatan 80-83
Milwaukee, Wis. 333
Mines and minerals Chile 44 *See also* bauxite, coal, copper, diamonds, gold, nitrate, oil, uranium
Minnesota ore dock, Duluth 356
Mongolian People's Republic 122-123
Monongahela River 243
Montana Glacier Park 342-343; irrigation 201
Montgomery, Sir Bernard 341
Montreal, Quebec 295
Monuments Mexican War memorial, Annapolis, Md. 129 *See also* statues
Morgan, Henry 223
Morocco 25-27
Mountains Alaska 301; Alps 18, 262-263; Andes 70-72, 194-196; Antarctica 307; Appalachians 204; Australia 38; Brazil 8; Canadian Rockies 51; Dolomites 172-173; England 318-319; Greenland 323; Himalayas 114-115, 290; Khyber Pass 187; Lookout 337; Maine 163; Mont. 342; Washington, N. H. 238-240; Pyrenees 221; Vermont 162; Tetons, Wyo. 265-266
Museums Samuel Johnson house 276; Woodrow Wilson house 156
Nairobi, Kenya 251
Napoleon I, Emperor of the French 41
Nashville, Tenn. 340
National Geographic Society 14, 22, 48, 60, 72, 93, 96, 118, 151, 152, 188, 246, 247, 248, 261, 264, 270, 280, 306-307, 336
National parks Canada: Banff 51, Waterton Lakes 343; Easter Is. 344-345; Lake Dist., England 318-319; U.S.: Glacier 342-343, Grand Teton 265, Sequoia 210, Yellowstone 267, Yosemite 211
Nehru, Jawaharlal 289, 291, 293
Nepal 114-115
Netherlands Christmas 127
New England 157, 162-167
New Guinea 109-112
New Hampshire 162, 238-240
New York 153 *See also* St. Lawrence Seaway, U.S. Merchant Marine Academy, U.S. Military Academy
New Zealand 320-321
Newfoundland 136-137; Grand Banks 330-331
Nigeria 217-220
Nile River 170-171, 254-257
Nitrates 44
North Atlantic Treaty Organization 66-68, 75
North Dakota barn 97
Norway 216
Ohio Ashtabula 352
Oil Calif. 214; Canada 49-51; Israel 327
Olympic games 158-160, 172-173
Ontario 295 *See also* St. Lawrence Seaway
Orange River 98-100
Oregon 28-29
Pakistan Khyber Pass 187
Palermo, Sicily 349
Panama 270-271 *See also* San Blas Islands
Paris, France 101
Pato (Argentine game) 329
Peary, Robert Edwin 336
Pencils, Lead 5-7
Pennsylvania 241-244
Peru 70-72, 176
Philadelphia, Pa. 241
Photography undersea 246-247; film 248-250; of medical studies 116
Pipe lines natural gas 286-288; water 38, 201
Polar regions *See* Antarctica *and* Arctic regions
Police Canada 61; Cairo, Egypt 256
Portugal fishing fleet 330-331 *See also* Azores
Potatoes Peru 71
Potter, Beatrix 319
Power solar 221; turboelectric 226
Pulpwood 167
Pygmies Africa 65
Pyramids Egypt 254, 258-259
Quebec lock, Soulanges Canal 354
Railroads cars 4, 298-300; Ecuador 194-196
Rameses II statue 253
Regina, Sask. 62-63
Revere, Paul 164-167
Rhode Island 163
Rio de Janeiro, Brazil 8-9
Rivers Germany 141-144 *See also* Bow, Churchill, Cottica, Cumberland, Monongahela, Nile, Orange, St. Lawrence, Sambu, Susquehanna, Tennessee, Yarra
Robin Hood 120
Rubber 272, 273
Saar 86-87
Sacramento, Calif. 212-213
St. Helena 41
St. Lawrence River 352-356
St. Lawrence Seaway 352-356
Sambu River Panama 270
San Blas Islands 21
San Francisco, Calif. 212-215
Santa Maria (caravel) 22
Saskatchewan 61-64
Sicily Palermo 349
Singapore 272-273
Skiing 18-19, 162, 172-173, 211
Sleighs and sleighing Lapp 128; New England 157
South Africa, Union of 98-100, 168
Southern Rhodesia *See* Victoria Falls
Sphinx Giza, Egypt 258
Stadium Melbourne, Australia 159
Stamps, Postage 156
Statues Christ, Rio de Janeiro, Brazil 8; Admiral Prat, Valparaiso, Chile 45; Little Mermaid, Copenhagen, Denmark, 278; Easter Is. 344-345; Rameses II, Egypt 253; Paul Revere, Boston, Mass. 164; Massasoit, Plymouth, Mass. 89; Philadelphia, Pa. 241
Steel Saar 86
Sudan 170-171
Sugar beets 201; cane 222
Superior, Wis. ore dock 356
Surinam 284-285
Susquehanna River 244
Sutter, John 212-215
Switzerland 30-31; Christmas 121
Taj Mahal 293
Tel Aviv, Israel 328
Telephone 152-155, 287
Telescope 58-59, 140, 260
Television 153

UMI

Dwellings—Continued
tent, Lapland 128; yurts, Mongolia 122; Longwood House, St. Helena 41; Woodrow Wilson home, Staunton, Va. 156
Easter Island 344-345
Ecuador 193-196
Edmonton, Alberta 49-50
Education Africa 65; Ethiopia 54; Gaza 24; India 289; Indonesia 2; Saskatchewan 64; U.S. 5, 150, 162 *See also* under U.S., service academies
Egypt 253-257, 258-259 *See also* Gaza strip
Engineering solar heat 221; water supply 200-203
England 88-89, 120, 126, 197, 276, 294, 318-319, 341
Eskimos 198-199
Ethiopia 53-54
Europe *See* Austria, Denmark, England, France, Germany, Greece, Italy, Mediterranean, Netherlands, Norway, Saar, Switzerland, Turkey
Everyday Wonders series *See* clocks, filling stations, film, matches, pencils, telephone, tin cans, water supply
Exploration Antarctica 13-16, 306-307; Australia 280-281; Calif. 212-215; Clark 28-29; Columbus 20-22, 222-223; Cortes 92; Cumberland Gap 204; New Guinea 109-112; South Africa 76-77, 100; undersea 246-247 *See also* Peary, R. E.
Factories and mills match 104-106; paper 167; pencil 5-7; Pennsylvania 243; tin cans 346-348; steel 86; watch 294
Falkland Islands 296-297
Ferns tree 321
Filling stations 55-57
Film 248-250
Fish and fishing 91, 163, 166, 198, 214, 277; photographing 246-247; Grand Banks 330-331
Flags Canadian 63; French 41; United States 36, 77, 78, 306
Florida porpoises 90-91; Seminoles 145, 150-151
Flowers orchids 271; wild 11-12
Food *See* bananas, corn, dates, grapes, potatoes, sugar, wheat
Forestry Iceland 149
Forts Clatsop, Ore. 28-29; Cyprus 66; Gibraltar 350; Malta 124
France 101, 146-148, 221 *See also* Morocco, Saar, St. Helena
Galilee, Sea of 326
Gas natural 286-288
Gas Stations *See* filling stations
Gaza strip 23-24
Geneva, Switzerland 30-31
Genghis Khan 122-123
Germany 141-144; Christmas 126-127 *See also* Saar
Gibraltar 350
Gold 212, 303-304
Gold Coast 234-235
Grand Banks Newfoundland 330-331
Grapes France 147; Turkey 73, 74
Grasmere, England 318, 319
Great Lakes *See* St. Lawrence Seaway
Great Rift Valley 10
Greece 232-233
Greenland 322-324
Guam (island) 268-269
Guatemala Mayas 80-83
Haakon VII, King of Norway 216
Haile Selassie I, Emperor of Ethiopia 53-54
Hawaii, Territory of Christmas 127
Ice Mt. Washington, N. H. 240
Ice Age 181-186
Iceland 149
Independence Hall Philadelphia, Pa. 241
India 289-293
Indians, American 28-29, 168; Aztec 85, 92-95; Chocó 270-271; Ecuador 195-196; Inca 70-72, 176; Massasoit 89; Maya 80-83; Seminole 145, 150-151; Yahgan 96 *See also* Eskimos
Indochina *See* Viet Nam
Indonesia 1-4
Industries canneries 346-348; dairy 277-279; Germany 141-144; natural gas 286-288; Saar 86-87; *See also* factories and mills
Inland waterways Europe 141-144; St. Lawrence Seaway 352-356
Irrigation Australia 38-40; Calif. 213; Egypt 256-257; Mont. 201; Sudan 170-171; Viet Nam 135
Islands *See* Azores, Cocos, Cyprus, Easter, Falkland, Greenland, Guam, Hawaii, Iceland, Indonesia, Jamaica, Malta, New Guinea, St. Helena, San Blas, Sicily, Singapore, Tierra del Fuego
Israel 325-328 *See also* Gaza strip
Istanbul, Turkey 74
Italy 172-173; Brenner Pass 262-263
Jamaica 222-223
Japan 169, 174-175; fishing 91
Jerusalem 325
Johnson, Samuel 276
Jordan water carrier 203; 205-208
Juneau, Alaska 305
Kabul, Afghanistan 187-189
Kano, Nigeria 218
Kentucky 204; barn 103
Kenya 251-252
Khyber Pass 187
Kitchens Eskimo 199; Japanese 174
Kuala Lumpur, Malaya 274
Laboratories photographic 248, 249
Lakes Beaverlodge 62; Donner 211; Eyre 40; English 318-319; Grosvenor 304; Kenai 301; Leman 30; Titicaca 176 *See also* St. Lawrence Seaway
Lapps 128
Latin America *See* Argentina, Bolivia, Brazil, Chile, Ecuador, Mexico, Peru, San Blas Is., Surinam
Lewis, Meriwether 28-29
Lhasa, Tibet 313, 315
Libya Tripoli 351
Lightning 333-335
Livingstone, David 76-77
Locks Grass River, N. Y. 354; Soulanges Canal, Quebec 354
London, England 276, 294
Long Island Sound sailboats 163; 225
Longwood House, St. Helena 41
Los Angeles, Calif. 213-215
Machinery cranes 4, 26; farm 75, 148, 222; match 104-106; mine 87; pencil 6, 7; power shovels 353; turboelectric unit 226; winches 29, 222, 273, 280
Maine 163, 166; barn 103
Malaya 272-275; tin 346
Malta 124-125
Maps 46-48; Africa 10, 76; Australia 231; Columbus's voyages 20; Ecuador 195; Himalayas 115; Ice Age nomads 186; India 291; Malaya 275; Near East 207; Nigeria 219; Peary explorations 336; Pennsylvania

Tennessee 204, 337-340
Tennessee River 337, 339
Texas natural gas 286-288; flowers 12
Thunderstorms 332-335
Tibet 313-316
Tierra del Fuego Yahgans 96
Tin cans 346-348
Tractors "weasels" 322, 324
Transportation *See* aviation, bicycles, boats and ships, railroads, sleighs, tractors
Trees eucalyptus 37; fir 29; hardwoods 235; oak 120; palm 21, 27, 112, 191, 223, 285; poplars 332; sequoias 210 *See also* Forestry
Tribal life pygmies, Africa 65; witch doctors 168; *See also* anthropology, Carpentaria, Eskimos, Indians, Jordan, Kenya, Lapps, Mongolian Republic, New Guinea, Nigeria, Sudan, Surinam, Tierra del Fuego, Uganda
Tripoli, Libya 351
Turkey 73-75
Uganda 138-139
United Nations 23-24, 122-123
United States history, pilgrims 88-89, Revolution 164-167 *See also* Alaska, California, Florida, Hawaii, Kentucky, Maine, Maryland, Massachusetts, Minnesota, Montana, national parks, New England, New Hampshire, New York, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, St. Lawrence Seaway, Tennessee, Texas, Vermont, Virginia, Wisconsin, Wyoming
U.S. Air Force Academy 310-311
U.S. Coast Guard Academy 177-180
U.S. Merchant Marine Academy 225-228
U.S. Military Academy 34-36
U.S. Naval Academy 129-132
U.S. Navy 14-16, 268-269, 306-307
Uranium 62-64
Valletta, Malta 124
Vermont 162
Victoria Cross 341
Victoria Falls 76-77
Viet Nam 133-135
Virginia 156, 204; gas extraction plant 288
Water supply 200-203
Waterfalls *See* Victoria, Yellowstone, Yosemite
Weather lightning 333-335; thunderstorms 332-335; weather stations, N.H. 238-240
West Indies *See* Jamaica
West Point *See* U.S. Military Academy
Wheat Egypt 254; France 148; Saskatchewan 64
Wilson, Woodrow centenary 156
Windmill 279
Wisconsin Milwaukee 333; ore dock, Superior 356
Witch doctors 168
Wordsworth, William home 318
Wyoming 265-267
Yarra River, Victoria, Australia 158
Yellowstone Falls 267
Yosemite Falls 211
Yucatan 80-83

N. K. BENSON

Tarsier

IF ever a gremlin appears in the flesh it will probably look like this popeyed, grinning tarsier from the Philippine island of Mindanao. Here pictured approximately life-size, this miniature member of the monkey family hunts beetles and lizards after dark using owl's eyes to see where it's going.

Though the tarsier looks like a ludicrous toy, half doll, half Teddy bear, it can snap its sharp little teeth. Left alone in the wilds, it greets nightfall by hopping from tree to tree, catching itself with soft, padded hands. Munching a tasty beetle, it closes its eyes with the joy of a gourmet.

Writing in the September, 1948, *National Geographic Magazine,* zoo supplier Charles H. Wharton recalls walking into his makeshift jungle "cage" for captured tarsiers and finding 20 pairs of big brown banjo-eyes fixed upon him. An unnerving sight for most. For a naturalist, a thrill.